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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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03/15/2007

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EXAMINER

CHRISTIE, ROSS J

ART UNIT

PAPER NUMBER

1731

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,066	Applicant(s) ERKER ET AL.	
	Examiner ROSS J. CHRISTIE	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8,10-16,27,28,30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-8, 10-16, 27, 28, 30 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Prosecution History

1. Examiner acknowledges entry and receipt of Applicants' Amendment under 37 C.F.R. §1.114 and Request for Continued Examination filed December 14, 2010.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 6, 8, 11-14, 16, 27, 28, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,296,839 to Ramin et al. (hereinafter "Ramin") in view of United States Patent No. 5,624,076 to Miekka et al. (hereinafter "Miekka").

In accordance with MPEP 2111, Examiner has interpreted the claim term "at least one of a plasticizer and a dispersing agent and a PVD aluminum pigment" its broadest reasonable interpretation to mean any one of a plasticizer, a dispersing agent or a PVD aluminum pigment may be present in the claimed nail varnish composition.

Referring to Applicants' claim 1, Ramin teaches a nail varnish having a metallic and multicolored iridescent appearance (See Abstract of Ramin), comprising a liquid phase (See Abstract; col. 2, ll. 1-5, 37-43; col. 4, ll. 24-25; col. 5, ll. 20-53 of Ramin), at least one film-forming component (See Abstract; col. 2, ll. 1-5, 31-56; col. 4, ll. 9-63 of Ramin), at least one of a plasticizer (col. 4, ll. 9-15; col. 6, ll. 57-60; col. 7, ll. 45-65, Example 1; col. 8, ll. 1-30, Example 2; col. 8, ll. 40-60, Example 3 of Ramin) and a dispersing agent (col. 7, ll. 10-18 of Ramin), and an aluminum pigment is present in the nail varnish at a pigmentation level of from 0.05 to 5.0% by weight, based on the total weight of the nail varnish (col. 3, ll. 45-49, 54-59, 63-67; Ramin teaches the metal pigment can be present in an amount ranging from 0.1% to 25% by weight with respect

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to the total weight of the composition), wherein the nail varnish also comprises a solvent in an amount of from 50% to 90% by weight, based on the total weight of the nail varnish (col. 5, ll. 49-53; Ramin teaches a mixture of organic solvents may be employed, and the organic solvent can be present in an amount ranging from 25 to 95% by weight with respect to the total weight of the composition), and with the proviso that the nail varnish does not include pearl luster pigments (See disclosure of Ramin; pearl luster pigments, also known as "interference pigments", are not taught in the nail varnish composition of Ramin).

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of *obviousness* exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). **MPEP 2144.05 [R-5]**

Although Ramin teaches including an aluminum pigment (e.g., STAPA LEAFING GRADE, STAPA METTALIC or METALURE L55350; ALUMINUM SUPER 800; SILVET ET; col. 5, ll. 54-59 of Ramin) in the nail varnish composition taught therein, Ramin does not teach explicitly the metallic aluminum pigment is a PVD aluminum pigment, wherein said PVD aluminum pigment has diffractive structures containing from approximately 5,000 to approximately 20,000 structural elements per cm and a metallic aluminum content of from 90 to 100% by weight, based on the weight of the aluminum pigment, according to Applicants' claim language.

However, as the applicant alludes to in the specification as originally filed, the PVD aluminum pigments can be made according to the process of United States Patent No. 5,624,076 to Miekka et al (See specification, pgs. 4-5). Miekka teaches a process

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for making embossed metallic leafing pigments (title), and specifically, discloses producing bright-metal particles in which an embossed pattern comprises a diffraction grating having from about 5,000 to 11,000 grooves (structural elements) per cm (See Abstract; col. 2, ll. 23-28; col. 2, l. 52 – col. 3, l. 5 of Miekka).

At the time of invention it would have been obvious to a person of ordinary skill in the art to produce the composition of Ramin and substitute the aluminum pigments taught therein with the PVD aluminum pigments with diffractive structures having the claimed number of structural elements as taught by Miekka. As Ramin teaches employing aluminum leafing pigments (e.g., STAPA LEAFING GRADE) and Miekka teaches making embossed metallic (aluminum) leafing pigments, a person having ordinary skill in the art would find the requisite suggestion in Miekka to make said substitution. Moreover, a person having ordinary skill in the art would be motivated to do so because Miekka discloses the resultant embossed metallic leafing pigments exhibit impressive aesthetic and decorative visual effects, such as with holographic imaging.

The selection of a known material based on its suitability for its intended use supported a *prima facie obviousness* determination in *Sinclair & Carroll Co. v.*

Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945). **MPEP 2144.07**

Referring to Applicants' claim 2, Miekka teaches a process for making embossed metallic leafing pigments (title), and specifically, discloses producing bright-metal particles in which an embossed pattern comprises a diffraction grating having from

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about 5,000 to 11,000 grooves (structural elements) per cm (See Abstract; col. 2, ll. 23-28; col. 2, l. 52 – col. 3, l. 5 of Miekka), which overlaps entirely Applicants' claimed range of "from approximately 7,000 to approximately 15,000 structural elements per cm".

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of *obviousness* exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). **MPEP 2144.05 [R-5]**

Referring to Applicants' claim 6, Ramin teaches the film-forming component comprises nitrocellulose, also known as cellulose nitrate (col. 6, ll. 16-23 of Ramin).

Referring to Applicants' claim 8, Ramin teaches the liquid phase is an organic solvent (See Abstract; col. 2, ll. 1-5, 37-43; col. 4, ll. 24-25; col. 5, ll. 20-53 of Ramin).

Referring to Applicants' claim 11, Ramin teaches the nail varnish can include bentonites and the working examples disclosed therein include hectorite (col. 6, ll. 41-52; col. 7, ll. 45-65, Example 1; col. 8, ll. 1-30, Example 2; col. 8, ll. 40-60, Example 3 of Ramin).

Referring to Applicants' claim 12, Ramin teaches the metal pigment can be present in an amount ranging from 0.1% to 25% by weight with respect to the total

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weight of the composition, which overlaps entirely Applicants' claimed range of "from 0.1% to 2.0 % by weight" (col. 3, ll. 45-49, 54-59, 63-67 of Ramin).

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of *obviousness* exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). **MPEP 2144.05 [R-5]**

Referring to Applicants' claim 13, Ramin teaches the nail varnish additionally contains at least one coloring agent (col. 6, l. 66 – col. 7, l. 18; col. 8, ll. 32-37 of Ramin).

Referring to Applicants' claim 14, Ramin teaches the coloring agent is at least one of a colored pigment and a dye (col. 6, l. 66 – col. 7, l. 18; col. 8, ll. 32-37 of Ramin).

Referring to Applicants' claim 16, Miekka teaches the PVD aluminum pigment has a layer thickness of from 100 angstroms (approximately 10 nm) to 500 angstroms (approximately 50 nm) (col. 6, ll. 44-46 of Miekka), which overlaps Applicants' claimed range of "from approximately 20 nm to approximately 140 nm".

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of *obviousness* exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). **MPEP 2144.05 [R-5]**

Referring to Applicants' claim 27, although Ramin teaches applying the nail varnish composition taught therein to human nails and thus also a fingernail coated with said nail varnish composition, Ramin does not teach explicitly an artificial fingernail characterized in that said artificial fingernail is coated with a nail varnish as defined in claim 1 according to Applicants' claim language.

At the time the invention was made a person having ordinary skill in the art would appreciate the versatility and applicability of the nail varnish composition taught by Ramin is not limited to human fingernails but can also be applied to artificial nails. A person having ordinary skill in the art would find it obvious to extend the teachings of Ramin in such manner.

The selection of a known material based on its suitability for its intended use supported a *prima facie obviousness* determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). **MPEP 2144.07**

Referring to Applicants' claim 28, Ramin teaches the organic solvent is selected from the group consisting of *toluene*, *n-propyl acetate*, isopropyl acetate, *isopropyl alcohol*, *ethyl acetate*, *ethanol*, *glycol ether*, *n-butyl acetate*, methyl propyl acetate, and mixtures thereof (col. 5, ll. 20-53 of Ramin).

Referring to Applicants' claim 30, Ramin teaches a mixture of organic solvents may be employed, and the organic solvent can be present in an amount ranging from 25 to 95% by weight with respect to the total weight of the composition (col. 5, ll. 49-53),

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which overlaps entirely Applicants' claimed range of "from 50% to 85% by weight, based on the total weight of the nail varnish."

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of *obviousness* exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). **MPEP 2144.05 [R-5]**

Referring to Applicants' claim 31, Ramin teaches a mixture of organic solvents may be employed, and the organic solvent can be present in an amount ranging from 25 to 95% by weight with respect to the total weight of the composition (col. 5, ll. 49-53), which overlaps entirely Applicants' claimed range of "from 50% to 75% by weight, based on the total weight of the nail varnish."

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of *obviousness* exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). **MPEP 2144.05 [R-5]**

6. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,296,839 to Ramin et al. (hereinafter "Ramin") in view of United States Patent No. 5,624,076 to Miekka et al. (hereinafter "Miekka") as applied to claims 1, 2, 6, 8, 11-14, 16, 27, 28, 30 and 31 above, and further in view of United States Pre-Grant Patent Application Publication No. 2004/0071644 A1 to Mougin et al. (hereinafter "Mougin").

Referring to Applicants' claim 5, although Ramin teaches the film forming component comprises nitrocellulose (col. 6, ll. 16-23 of Ramin) also known as cellulose nitrate, Ramin does not teach explicitly the nitrocellulose has a molecular weight of more than 56,000 g/mol according to Applicants' claim language.

However, Mougin teaches a nail varnish composition containing at least one film-forming polymer, such as cellulose nitrate, having a number-average molecular weight of less than or equal to 300,000 (pars. [0027], [0061] of Mougin), which overlaps entirely Applicants' claimed range of "more than 56,000 g/mol".

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of *obviousness* exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). **MPEP 2144.05 [R-5]**

Referring to Applicants' claim 7, although Ramin teaches the film forming component comprises nitrocellulose (col. 6, ll. 16-23 of Ramin) also known as cellulose nitrate, Ramin does not teach explicitly the film-forming component comprises cellulose acetate butyrate having a molecular weight of more than 83,000 g/mol according to Applicants' claim language.

However, Mougin teaches a nail varnish composition containing at least one film-forming polymer, such as cellulose acetobutyrate, having a number-average molecular weight of less than or equal to 300,000 (pars. [0027], [0061] of Mougin), which overlaps entirely Applicants' claimed range of "more than 56,000 g/mol".

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In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a *prima facie* case of *obviousness* exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). **MPEP 2144.05 [R-5]**

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,296,839 to Ramin et al. (hereinafter “Ramin”) in view of United States Patent No. 5,624,076 to Miekka et al. (hereinafter “Miekka”) as applied to claims 1, 2, 6, 8, 11-14, 16, 27, 28, 30 and 31 above, and further in view of United States Patent No. 5,326,796 to LeCacheur et al. (hereinafter “LeCacheur”).

Referring to Applicants’ claim 10, although Ramin teaches a nail varnish composition containing a plasticizer, Ramin does not teach explicitly the plasticizer is at least dibutyl phthalate, optionally together with saccharose acetate isobutyrate according to Applicants’ claim language.

However, LeCacheur teaches the function of a plasticizer in a nail varnish composition is to decrease the hardness of a film-forming agent by imparting flexibility to the film-forming agent (See Abstract; col. 5, l. 60 – col. 6, l. 23 of LeCacheur). LeCacheur teaches any one or more of numerous plasticizers, such as dibutyl phthalate, can be employed in a nail varnish composition containing a film-forming agent (col. 5, l. 60 – col. 6, l. 23 of LeCacheur).

At the time the invention was made a person having ordinary skill in the art would find it obvious to employ a plasticizer, e.g., dibutyl phthalate, in a nail varnish composition given the teachings of both Ramin and LeCacheur. A person having

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ordinary skill in the art would be motivated to utilize dibutyl phthalate specifically because LeCacheur teaches and suggests doing so decreases the hardness of a film-forming agent by imparting flexibility to the film-forming agent in the nail varnish composition.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,296,839 to Ramin et al. (hereinafter "Ramin") in view of United States Patent No. 5,624,076 to Miekka et al. (hereinafter "Miekka") as applied to claims 1, 2, 6, 8, 11-14, 16, 27, 28, 30 and 31 above, and further in view of the article entitled "PVD Aluminum Pigments: Superior Brilliance for Coatings & Graphic Arts" by Seubert (copy previously provided).

Referring to Applicants' claim 15, although Miekka teaches PVD aluminum pigments have diffractive structures, Miekka does not teach explicitly the diffractive structures are a reflection grating according to Applicants' claim language.

However, Seubert teaches diffractive structures are inherent in the PVD aluminum pigments and proves that such diffractive structures are a reflection grating (Seubert, figures on pgs. 4-6 regarding the PVDA pigment).

At the time the invention was made a person having ordinary skill in the art would find it obvious that the diffractive structures of the PVD aluminum pigments of Miekka are a reflection grating.

"[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the

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art would reasonably be expected to draw therefrom.” *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). **MPEP 2144.01**

“The rationale to support a rejection under 35 U.S.C. 103 may rely on logic and sound scientific principle.” *In re Soli*, 317 F.2d 941, 137 USPQ 797 (CCPA 1963).

MPEP 2144.02 [R-6]

9. Examiner draws Applicants attention to the following prior art considered relevant but not applied in the present rejections: United States Patent No. 5,804,169 to Ramin; United States Patent No. 6,210,059 to Ramin et al.; United States Patent No. 6,333,025 to Ramin; United States Patent No. 6,447,761 to Ramin; United States Pre-Grant Patent Application Publication No. 2001/0041168 A1 to Ramin; United States Pre-Grant Patent Application Publication No. 2004/0071643 A1 to Vicic et al.; United States Pre-Grant Patent Application Publication No. 2004/0120906 A1 to Toumi et al.; United States Pre-Grant Patent Application Publication No. 2004/0185017 A1 to Mougin et al.; United States Pre-Grant Patent Application Publication No. 2004/0202688 A1 to Mougin et al.; United States Pre-Grant Patent Application Publication No. 2004/0241115 A1 to Ramin; United States Pre-Grant Patent Application Publication No. 2005/0002878 A1 to Lefrancois et al.; and, United States Pre-Grant Patent Application Publication No. 2005/0100518 A1 to llekti et al.

Response to Arguments

10. Applicant's amendments to the claims, see Amendment under 37 C.F.R. §1.114, filed December 14, 2010, with respect to the rejections of claims 1, 2, 5-8 and 10-29 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, new grounds of rejection are made in view of United States Patent No. 6,296,839 to Ramin et al., United States Pre-Grant Patent Application Publication No. 2004/0071644 A1 to Mougin et al. and United States Patent No. 5,326,796 to LeCacheur et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROSS J. CHRISTIE whose telephone number is (571)270-3478. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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